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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,547	02 25 2002	Jae-Seok Jeong	P56649	8267

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EXAMINER

GEMMELL, ELIZABETH M

ART UNIT PAPER NUMBER

2882

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/080,547

Applicant(s)

JEONG ET AL.

Examiner

Beth Gemmell

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 2 and 4-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 4 6) ☐ Other: _____

Art Unit: 2882

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "100" has been used to designate both partitions and the plasma display panel. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the blue phosphors being arranged in a triangular shape must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

- Page 1: delete lines 3-7

Appropriate correction is required.

Claim Objections

Claims 1-4,7,10,11 and 13 are objected to because of the following informalities:

- Claim 1, line 4: "and a snaking"; should be --and formed in a snaking--.
- Claim 1, line 5: delete "ones of the".
- Claim 1, line 8: It is unclear to the Examiner exactly what the limitation of "the phosphors being arranged in a triangular shape" means. First, it is unclear if all three of the phosphors are in the same shape or just the blue phosphor. Second, the disclosure states that the triangular shape of the phosphors are shown in figure 3, however the shape in figure 5 is a hexagon, six-sided figure, not a triangle, a three-sided figure.

Therefore, the examiner has interpreted the triangle limitation to mean a hexagon since that is what is shown in figure 3, as found below.

- Claims 2,7,10, and 13: "thickness"; should be --width--.
- Claim 2, line 5: "than thickness"; should be --than the width--.
- Claim 4, line 6: The limitations of the first partitions are unclear to the Examiner. It seems as though the "first partition" and the recessed portion in combination make up the entire barrier, which also is referred to as a "first partition". If this interpretation is correct, it is unclear how the recessed portions, which are a part of the "first partition", can then be "adjacent to the first partition".

- Claim 11, line 7: First seems to be similar to the limitations in claim 4, line 6, except it seems there are words missing. And if there are words missing, the same confusion remains as in Claim 4, line 6.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Betsui et al. (US Patent 5,825,128; hereinafter Betsui).

Betsui discloses, in figure 3 and throughout the disclosure, a plate for use in a plasma display panel, comprising: a substrate (11); a dielectric layer formed on a top surface of the substrate (17); and partitions (29) spaced a predetermined distance apart from each other and formed in a snaking shape in a common direction to form a plurality of channels between adjacent partitions, the channels (column 4, lines 37+) including main discharge spaces and auxiliary discharge spaces alternately arranged and connected to each other through the channels, red, green and blue phosphors (28R,G and B) coated in the main discharge spaces accommodating the red, green and blue phosphors being arranged in a hexagon shape and the green and red phosphors being aligned with each other in a direction approximately perpendicular to the common direction (figure 4A).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Betsui in view of Shiiki et al. (US Patent 6,411,032; hereinafter Shiiki).

Betsui shows all the limitations as seen above.

Betsui fails to show the main discharge space of the blue phosphor is wider than the main discharge spaces of the green or red phosphors.

Shiiki shows the main discharge space of the blue phosphor is wider than the main discharge spaces of the green or red phosphors (Embodiment 1; column 4, lines 17+).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the plasma display panel disclosed by Betsui with that of Shiiki because by enlarging the width of the blue phosphor the luminance of the blue is increased and the halftone color is more easily adjusted. Improving the luminance of the blue phosphor and adjusting the halftone color produces an improved overall image which is more acceptable to the consumer.

Allowable Subject Matter

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Should all the previous claim objections be corrected, claims 4-16 would be allowed.

The following is a statement of reasons for the indication of allowable subject matter: The best prior art of record teaches a conventional plasma display panel, however they fail to teach or fairly suggest partition portions, wherein the width of the portions forming the main discharge spaces and the auxiliary discharge spaces is larger than that of the portion connecting the portions forming the main discharge spaces and the auxiliary discharge spaces. The prior art further fails to teach or suggest using a combination of snake-like partitions with that of striped partitions having recessed portions.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 6,376,986
- US Patent 6,495,967 discloses the use of a striped partition with recessed portions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Gemmell whose telephone number is (703) 305-1937. The examiner can normally be reached on Monday-Thursday 6:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



emg
May 8, 2003

